

## Author Index

- Adema, D.M.M. 493  
 Aldenberg, T. 681  
 Altschuh, J. 41  
 Anderson, E.B. 667  
 Arnold, L.M. 569
- Baláz, S. 357  
 Barbaro, A.M. 33  
 Beauman, J. 635  
 Biagi, G.L. 33  
 Boethling, R.S. 635, 643  
 Borea, P.A. 33  
 Bradburne, S.J.A. 425  
 Brinkman, U.A.Th. 69  
 Brinsley, M.D. 461  
 Broderius, S.J. 537  
 Brüggemann, R. 41, 387  
 Bryant, S.E. 581  
 Butte, W. 377
- Calamari, D. 605  
 Chiorboli, C. 307  
 Commandeur, L.C.M. 275  
 Cronin, M.T.D. 431
- Dannenfelser, R.-M. 625  
 De Bruijn, J. 441  
 De Voogt, P. 69  
 De Vries, G. 179  
 De Wolf, W. 383, 457  
 Dearden, J.C. 59, 425, 431  
 Degner, P. 253  
 Den Hollander, H.A. 283  
 Dirven-van Breemen, E.M. 493  
 Dittrich, B. 527  
 Dixon, D.G. 515  
 Dobbs, A.J. 431  
 Donkin, P. 461
- England, M.W. 477  
 Eriksson, L. 307  
 Esterby, S.R. 499  
 Evans, S.V. 461  
 Evers, E.H.G. 105
- Fox, K. 377
- Garlanda, M.M. 605  
 Geyer, H.J. 387  
 Gobas, F.A.P.C. 89  
 Gorge, G. 411  
 Govers, H.A.J. 69, 105, 237, 275  
 Greenwood, B.E. 667  
 Guerra, M.C. 33
- Hansch, C. 17  
 Hart, J.W. 629  
 't Hart, M.J. 283  
 Henzen, L. 493  
 Hermens, J.L.M. 1, 383, 441, 457, 681  
 Hoeschele, J.D. 477  
 Hoigné, J. 327  
 Hosein, L.M. 581  
 Howard, P.H. 635  
 Hulzebos, E.M. 493  
 Huse, G.R. 643
- Johnson, D.E. 537  
 Jonsson, J. 307
- Kaiser, K.L.E. 499  
 Kalsch, W. 411  
 Kettrup, A. 387  
 Klein, W. 253, 261, 343, 527  
 Koopmans, R.E. 179  
 Kördel, W. 343  
 Korte, F. 387
- Leo, A.J. 121  
 Lin, D.T. 569  
 Lipnick, R.L. 131, 537  
 Luijk, R. 105  
 Lynch, D.G. 643
- Ma, W.-c. 589  
 Mackay, D. 515  
 Magee, P.S. 155  
 Marsmann, M. 671  
 McCarty, L.S. 515

- Meylan, W. 635  
Mishra, D.S. 243  
Müller, M. 261
- Nabholz, J.V. 649  
Nagel, R. 411  
Nendza, M. 253, 527  
Newsome, L.D. 537
- Opperhuizen, A. 457  
Ozburn, G.W. 515
- Parsons, J.R. 275  
Peijnenburg, W.J.G.M. 283  
Pilli, A. 667  
Purdy, R. 553
- Recanatini, M. 33  
Rekker, R.F. 179  
Roberts, D.W. 301, 557  
Russom, C.L. 537, 667
- Sabljić, A. 197  
Sapone, A. 33  
Scheunert, I. 387  
Schultz, T.W. 569, 581  
Schüürmann, G. 221, 343, 395, 671  
Schwarzenbach, R.P. 327  
Seinen, W. 383, 457  
Seydel, J.K. 357  
Smit, C.E. 589  
Smith, A.D. 515  
Steinberg, C. 387  
Stiteler, W. 635
- Thom, G.C. 643  
Tichý, M. 407  
Tirado, N.F. 643  
Tomlinson, E. 9  
Tosato, M.L. 307  
Tratnyek, P.G. 327  
Turner, J.E. 477
- Van Gestel, C.A.M. 493, 589  
Van Eyseren, H.E. 275  
Van Haelst, A. 237  
Van Leeuwen, C.J. 681  
Van de Meent, D. 283  
Van der Gaag, M.A. 677  
Van der Zandt, P.T.J. 681  
Verboom, H.H. 283  
Verhaar, H.J.M. 681  
Vighi, M. 605  
Von Oepen, B. 343
- Walker, J.D. 691  
Wegener, J.W.M. 69  
Wenzel, A. 527  
Widdows, J. 461  
Wiese, M. 357  
Wilke, T.S. 581  
Wolfe, N.L. 283
- Yalkowsky, S.H. 243, 625  
Yedema, E. 383
- Zauke, G.-P. 377  
Zeyer, J. 327  
Zok, S. 411

## Subject Index

- AChE inhibition 441  
 Acids 343  
 Acute toxicity 425, 499, 515, 537, 649  
 Alcohol dehydrogenase (activation) 131  
 Algae 387  
 Alkyl benzene sulphonates 301  
 Amides 343  
 Amines 343, 537, 581  
 Aniline 411  
 Anilines 59, 569  
 Anion ionization potential 221  
 Anionic surfactants 301  
 Anti-carcinogenicity 425  
 Anti-oxidants 425  
 Aquatic toxicity 557  
 Aqueous solubility 41, 625  
 Aromatic amines 383, 457  
 Aromatic compounds 253  
 Atmospheric degradation 261  
 AUTOCHEM 643  
  
 Bioaccumulation 155, 377  
 Bioaccumulation in vegetation 197  
 Bioconcentration 383, 387, 395, 411, 441, 457, 515, 671  
 Biodegradation 253, 275, 283, 301, 635  
 Biosolubility 407  
 Biotransformation 441  
 Branching factors 557  
  
 Carcinogenicity 17  
 CHEMEST 643  
 Chemical industry 671  
 Chemical properties 643  
 Chemical regulation 649  
 Chemical selection 691  
 Chlorinated hydrocarbons 121, 395  
 Chlorobenzenes 105  
 Chromatographic retention 105  
 Chronic toxicity 649  
 Cluster analysis 499  
 Comparative toxicity 431  
 Computerized substructure searching 691  
  
 Conformational flexibility 59  
 Congeners 237  
 Cyanogenic 131  
  
*Daphnia magna* 387, 431  
 Data estimation methods 629  
 Dehalogenation 283  
 Dioxin 89  
 Discriminant analysis 253  
 Distance principle 301  
 Drug design 1  
  
 Earthworm toxicity 589  
 Ecotoxicology 671  
 Electrophile 131  
 Elimination 383, 411  
 Elimination kinetics 395  
 Entropy 243  
 Environmental fate 1  
 Enzymatic reactions 357  
 Epoxides 553  
 Equilibrium partitioning 681  
 Equilibrium partitioning theory 589  
 Esters 343  
 Estimation methods 635, 643  
 Exposure assessment 649  
 Extrapolation model 681  
  
 Fish toxicity 131, 441, 537  
  
 Gas-phase acidity 221  
 Glutathione 441  
 Glycosylation 9  
 Guppy 457  
  
 Haloalkanes 307  
 Halogenated hydrocarbons 283  
 Hammett constants 221  
 Hammett substituent constants 275  
 HASSE diagrams 41  
 Hazard assessment 649, 681  
 Heat capacity 243  
 Henry's law constant 197

- Herbicides 33  
Hetero-PAH 69  
Hexachlorocyclohexane isomers 377  
Honeybees 605  
Hybrid proteins 9  
Hydrogen bonding 59  
Hydrophobicity 17, 89, 121, 357  
  
Inorganic concepts 477  
Intermolecular forces 59  
Inter-species relationships 431  
  
Kinetic description 357  
Kinetics 275, 377, 383  
  
LAS 301  
Lethal body burden 457  
*Leuciscus idus melanotus* 499  
LFER 283  
Linear alkylbenzene sulphonates 301  
Lipophilic factors 179  
Lipophilicity 527, 671  
Lipophilicity indices 33  
  
Margin of safety 649  
Marine humic substances 197  
Melting point 59  
Metabolism 411  
Metal binding 477  
Metal toxicity 477  
Michael addition 131  
Microbial biodegradation of organic chemicals 197  
Microtox 431  
Mobile phase composition 69  
Model systems 327  
Molecular connectivity 425, 537, 605  
Molecular connectivity indices 197  
Monooxygenase (activation) 131  
Monophasic elimination 395  
Monosubstituted anilines 569  
Morephasic elimination 395  
Multivariate models 307  
Mussels 387, 461  
Mutagenicity 17  
*Mytilus edulis* 461  
  
Narcosis 155  
Narcotic organic chemicals 515  
Narcotic pollutants 681  
NMR shifts 221  
  
One-electron potential 327  
Organic compounds 243, 387  
Organic non-electrolytes 625  
Organic pollutants 327  
Organophosphorous compounds 441, 605  
*Ortho* substituents 221  
Oxidation 327  
Oxidative phosphorylation 425  
  
P-450 induction 17  
Partitioning 155  
PCBs 237, 275  
PCDDs 89, 105  
Pesticides 605  
Phenols 221, 425  
Phenylurea herbicides 527  
Photooxidation 307  
Phytotoxicity 493  
*Pimephales promelas* 431, 499, 537, 581  
Plant-protecting agents 527  
*Poecilia reticulata* 457  
Polar narcosis mechanism of action 569  
Polarizability 155  
Polychlorobenzenes 179  
Polymethylbenzenes 179  
Pore water concentration 589  
Premanufacture notices 643, 649  
Priority pollutants 493  
Proelectrophile 131  
Property-property relationships 41  
  
Quantum chemical descriptors 221  
Quantum chemical parameters 261  
  
Radicals 261  
Rat LD<sub>50</sub> 131  
Rate constants 307  
Reactivity 261  
Redox transformations 283  
Reduction 283, 327  
Regulatory authorities 629  
Retention 69  
Reversed-phase HPLC 69  
Risk assessment 1, 649, 667  
  
Safety factors 681  
*Scenedesmus quadricauda* 499

- Sediments 283, 681
- Site-specific drug delivery 9
- Soil sorption 589
- Solubility 89
- Solubility parameters 105
- Solvation 89
- Solvent-accessible surface area 121
- Sorption 343
- Statistical design 307
- Steric hindrance 179
- Sublethal responses 461
- Substituted anilines 411
- Substituted nitrobenzenes 327
- Substituted phenols 327
- Substructures 253, 691
- Superdelocalizability 553
- Surfactants 557
- Symmetry 59
- Target organ estimation 407
- 2,3,4,5-Tetrachloroaniline 457
- Tetrachlorobenzene 383
- Tetrahymena pyriformis* 431, 499, 581
- Therapeutic proteins 9
- Tissue selectivity 407
- Tissue-gas partition coefficient 407
- Tissue-tissue partition coefficient 407
- Topological descriptors 605
- Triazine herbicides 33
- Uncertainty factor 649
- Vapor pressure 243
- Vaporization 89
- Water quality criteria 681
- Water quality management 677
- Zebrafish 411



